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Sir:

Transmitted herewith for filing under 37 CFR 1.53(b) is a(n): ☒ Utility ☐ Design

☒ original patent application,  
☐ continuation-in-part application

INVENTOR(S): David BOHAN

TITLE: UTILIZATION OF THIRD PARTY LEGACY DATA LIST

Enclosed are:

☒ The Declaration and Power of Attorney. ☒ signed ☐ unsigned or partially signed  
☒ 6 sheets of drawings (one set) ☐ Associate Power of Attorney  
☐ Form PTO-1449 ☐ Information Disclosure Statement and Form PTO-1449  
☐ Priority document(s) ☐ (Other) (fee \$ )

CLAIMS AS FILED BY OTHER THAN A SMALL ENTITY				
(1) FOR	(2) NUMBER FILED	(3) NUMBER EXTRA	(4) RATE	(5) TOTALS
TOTAL CLAIMS	20 — 20	0	X \$18	\$ 0
INDEPENDENT CLAIMS	3 — 3	0	X \$78	\$ 0
ANY MULTIPLE DEPENDENT CLAIMS	0		\$260	\$ 0
BASIC FEE: Design (\$310.00 ); Utility (\$690.00 )				\$ 690
TOTAL FILING FEE				\$ 690
OTHER FEES				\$
TOTAL CHARGES TO DEPOSIT ACCOUNT				\$ 690

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By \_\_\_\_\_

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Respectfully submitted,

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1                   **UTILIZATION OF THIRD PARTY LEGACY DATA LIST**

2  
3       **FIELD OF THE INVENTION**

4               This invention relates generally to computer software, and more particularly to  
5       methods of allow use of legacy data lists by a newly installed application program.

6  
7       **BACKGROUND OF THE INVENTION**

8               Data lists are used extensively in various application programs. For example, a  
9       phonebook is typically a requirement for computer facsimile software. As another example,  
10      e-mail address books and contact information lists are commonly incorporated into e-mail  
11      programs. Typically, the data list is maintained in a custom format for its particular  
12      application program, and not compatible with other application programs.

13              When a new application program is installed to replace an existing, or a legacy,  
14      application program, a new user must populate the data list associated with the new  
15      application program. Such population can be done manually or semi-automatically by use of  
16      an import function. In the latter case, a phonebook or address book, for example, from the  
17      legacy data list from the legacy application program is imported into the new application  
18      problem. A problem with either of the above technique is that two separate data lists must be  
19      maintained and synchronized. This requires extra and duplicated effort on the part of the user,  
20      and is thus undesirable.

21              Thus, there is a need for a method and apparatus for allowing a new application  
22      program to utilize data lists of one or more legacy application program without requiring a  
23      user to maintain and/or synchronize two separate data lists.

24  
25      **SUMMARY OF THE INVENTION**

26              In accordance with the principles of the present invention, a method of providing an  
27      access to one or more third party legacy data list to a user of an application program of a  
28      computer system comprises querying an operating system, by the application program upon  
29      start of the application program, whether one or more plug-in module is registered in a  
30      registry of an operating system, the one or more plug-in modules being capable of interfacing

6 In accordance with another aspect of the present invention, a system for providing an  
7 access to one or more third party legacy data list to a user of a computer system comprises  
8 one or more plug-in module, each of which being capable of interfacing with an associated  
9 one of the one or more third party data list, each of the one or more plug-in modules being  
10 registered in a registry of an operating system of the computer system, and an application  
11 program having a user interface, the application program upon starting being in  
12 communication with the operating system to query the registry to determine registered ones  
13 of the one or more plug-in module, the application program further configured to query each  
14 of the registered ones of the one or more plug-in modules for names of the one or more third  
15 party legacy data list, the application program being configured to provide a list of the names  
16 of the one or more third party legacy data list to the user through the user interface.

In accordance with yet another aspect of the present invention, a computer readable storage medium on which is embedded one or more computer programs, the one or more computer programs implementing a method of providing an access to one or more third party legacy data list to a user of an application program of a computer system, the one or more computer programs comprises a set of instructions for querying an operating system, by the application program upon start of the application program, whether one or more plug-in module is registered in a registry of an operating system, the one or more plug-in modules being capable of interfacing with corresponding respective ones of the one or more third party legacy data list, receiving, from the one or more plug-in modules found in the registry, identifications of ones of the one or more third party legacy data list corresponding to the found one or more plug-in modules, and providing a list of the identifications to the user through a user interface of the application program.

29 In comparison to known prior art, certain embodiments of the invention are capable of  
30 achieving certain advantages, including some or all of the following: (1) saving time and

1 effort of the user; (2) eliminating the need for a user to populate a new data list; (3)  
 2 eliminating the need to maintain and synchronize multiple data lists; (4) avoiding errors that  
 3 can be introduced during the population process; and (5) eliminating the need for a user to  
 4 learn a new user interface. Those skilled in the art will appreciate these and other advantages  
 5 and benefits of various embodiments of the invention upon reading the following detailed  
 6 description of a preferred embodiment with reference to the below-listed drawings.

7

## 8 BRIEF DESCRIPTION OF THE DRAWINGS

9 Features and advantages of the present invention will become apparent to those skilled  
 10 in the art from the following description with reference to the drawings, in which:

11 Figure 1 shows an exemplary embodiment of the relevant portions of a system for  
 12 providing user access of third party legacy data list in accordance with the principles of the  
 13 present invention;

14 Figure 1A shows a more detailed depiction of an exemplary embodiment of one of the  
 15 plug-in module shown in Figure 1;

16 Figure 2 shows a flowchart of an exemplary embodiment of the application program  
 17 installation process in accordance with the principles of the present invention;

18 Figure 3 shows a flowchart of an exemplary embodiment of the plug-in modules  
 19 discovery process in accordance with the principles of the present invention;

20 Figure 4 shows an illustrative exemplary embodiment of the user interface for the  
 21 application program in accordance with the principles of the present invention;

22 Figure 5 shows a flowchart of an exemplary embodiment of the user selection and  
 23 access of the third party legacy data list process in accordance with the principles of the  
 24 present invention; and

25 Figure 6 shows a flowchart of an exemplary embodiment of the application update  
 26 process in accordance with the principles of the present invention;

27

## 28 DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

29 For simplicity and illustrative purposes, the principles of the present invention are  
 30 described by referring mainly to an exemplar embodiment thereof, particularly with

6 In accordance with the principles of the present invention, a method and system of a  
7 computer application program allows a user of the application program to utilize third party  
8 legacy data lists, e.g., contact information lists, telephone and facsimile numbers, scheduling  
9 and/or appointment information or the like, through a common interface, without requiring  
10 the user to manually type in the data into a new data list or to maintain multiple data lists.  
11 For each of the third party legacy data list installed on the computer, one of a plurality of  
12 plug-in modules also installed on the computer acts as an interface between the application  
13 program and the legacy data list. Each of the plug-in module is an object accessible by the  
14 application program at run-time.

In one embodiment, the plug-in modules are compiled and a dynamic linked library (DLL) and registered in the operating system registry based on an object oriented specification, e.g., the component object model (COM) specification provided by the Microsoft Corporation of Redmond, Washington, USA. The plug-in modules are listed under a COM category in the registry of the operating system, and are discovered by the application program at start up. Additional plug-in modules may be added at any time simply by registering the additional plug-in modules. The next time the application program is started, the additional plug-in modules are automatically discovered. Using the discovered plug-in modules, the application program allows the user to access and/or edit the third party legacy data lists through the user interface of the application program. In an alternative embodiment, upon an indication, by the user of the application program, a desire to edit data of a particular third party legacy data list, the corresponding plug-in module causes the editor user interface screen of the legacy data list to be displayed to the user. The user is allowed to edit the data list using the user interface of the legacy data list.

In particular, Figure 1 shows an exemplary embodiment of the relevant portions of a system **100** for providing user access of third party legacy data list in accordance with the

1 principles of the present invention. The system **100** comprises an operating system (OS) **101**  
 2 installed on the computer (not shown). The OS **101** may be, for example, the WINDOWS™  
 3 sold by the Microsoft Corporation of Redmond, Washington, USA. The operating system  
 4 includes a component registry **102** that keeps a list of system components and resources  
 5 required by an application program **103** installed on the computer. The application program  
 6 **103** may comprise any program that is require to or is desirable to keep a data list. For  
 7 example, a facsimile software may keep a list of names and facsimile telephone numbers of  
 8 many potential recipients. An e-mail software may need to keep a list of e-mail addresses of  
 9 various e-mail users. Many personal organizer programs keep contact information,  
 10 scheduling/appointment lists, or the like.

11 The application program **103** may also comprise a user interface **104** for providing a  
 12 user of the application program means for interact with the application program **103**. In  
 13 accordance with the principles of the present invention, the user interface **104** serves as a  
 14 common interface through which the user may access any number of third party legacy data  
 15 lists **106**, i.e., the legacy data list #1 through legacy data list #N (where N may be any integer  
 16 greater than equal to 1) installed on the computer.

17 The system **100** may also comprise any number of plug-in modules (PM) **105**, one of  
 18 which is shown in more detail in Fig. 1A. As shown, each plug-in module **105** comprises an  
 19 application program interface portion **105A** and a third party legacy (TPL) data list interface  
 20 portion **105B**. The application program interface portions **105A** of all plug-in modules are  
 21 identical to each other. Thus, the application program **103** may use one common protocol  
 22 and/or function call set to communicate with all plug-in modules **105**. Thus, when an  
 23 additional plug-in module is installed on the computer after the installation of the application  
 24 program **103**, the application program **103** need not be recompiled or modified in any way.  
 25 As will described in more detail later, the newly added plug-in modules are discovered by the  
 26 application program **103**, and are used by the application in the same manner that the existing  
 27 plug-in modules are used.

28 In accordance with an embodiment of the present invention, each of the plug-in  
 29 modules **105** is compiled as a dynamic link library, with which the application program **103**  
 30 may communicate during run-time. In a preferred embodiment of the present invention, the



the plug-in modules comprise adding a COM category entry in the registry, e.g., COM category: <Legacy Data List Plug-in Modules>, and listing each of the plug-in modules 105 as a COM object with a unique identifier under that COM category.



utilize the same without any modification to the application program **103**.

Figure 4 shows an illustrative exemplary embodiment of the user interface for the application program **103**, e.g., as implemented as a facsimile software, in accordance with the principles of the present invention. The facsimile software user interface **400** comprises, in addition to the various input windows and selection buttons to carry out the functionality of the facsimile software, a drop down selection box **401**, which lists the legacy data lists, e.g., in this example phone books from various legacy facsimile software, installed on the computer as identified by the application program according to the process described above.

In Fig. 4, it is shown that the user has selected, e.g., the legacy data list #2. The data set of the legacy data list #2 appears in the display window **402**. The user is also allowed to edit the data set of the selected data list by selecting the "Edit" selection button **403**, or to create a recipient list by selecting the "Create Recipient List" selection button **404**. When the user selects the "Edit" selection button **403**, in an embodiment of the present invention, the plug-in module **105** of the selected legacy data list **106** causes an edit user interface of the legacy data list **106** to displayed to the user, and allows the user to add, delete, copy and/or modify the data of the legacy data list using a user interface the user may be familiar. In an alternative embodiment, the plug-in module **105** may cause an edit user interface of the application program **103** to be provided to the user.

In a particular embodiment of the present invention, the selected data list is stored as the "default data source", and is automatically selected the next time the application program **103** is run. The user can use the drop down box **402** to choose another source of data.

Referring to Figure 5, an exemplary embodiment of the user selection and access of the third party legacy data list process **500** in accordance with the principles of the present invention will now be described. When a user selects one of the data lists, e.g., from the drop down selection box **401**, the application program detects the selection in step **501**. The application program **103** then sends a data request function call to the plug-in module corresponding to the selected data list in step **502**.

The corresponding plug-in module **105** obtains the data set from the selected data list using the TPL data list interface portion **105B**, and returns the data set to the application

program **103** in step **502**. In step **504**, the data set is then displayed to the user, e.g., in the display window **402**, from which the user can access the data.

If, in step **505**, the application program **103** detects that the user wishes to modify any datum in the selected third party legacy data list **105**, e.g., when the “Edit” selection button **403** is selected, the application program **103** sends an edit request function call to the plug-in module supporting the selected data list in step **506**. The plug-in module then causes an edit user interface screen (not shown) to be displayed in step **507**, and the user is allowed to add, delete and/or modify any datum from the data set of the selected data list. The edit user interface screen may be either a user interface screen of the application program **103** or a user interface screen of the legacy data list **106**. The process then ends in step **509** until another user action is detected in step **501**, in which case, the process **500** is repeated.

Figure 6 shows a flowchart of an exemplary embodiment of the application update process in accordance with the principles of the present invention. As previously mentioned, even after the application program **103** is installed on a field computer, when a plug-in module for a previously unsupported data list is desired, the plug-in may be developed and delivered to the field, or downloaded from the Internet by the user, and installed on the field computer.

The installer program for the new plug-in module may unpack and copy the new plug-in module(s) to a memory storage of the computer, e.g., a hard disk, in step **602**. In step **603**, the installer then registers the new plug-in module with the operating system in a similar manner as previously described in connection with Fig. 2. Once the new plug-in module is registered, the application program **103** will automatically discover the new plug-in module the next time the application program is run as described above in Fig. 3.

What has been described and illustrated herein is a preferred embodiment of the invention along with some of its variations. The terms, descriptions and figures used herein are set forth by way of illustration only and are not meant as limitations. Those skilled in the art will recognize that many variations are possible within the spirit and scope of the invention, which is intended to be defined by the following claims -- and their equivalents -- in which all terms are meant in their broadest reasonable sense unless otherwise indicated.

## CLAIMS

What is claimed is:

1. A method of providing an access to one or more third party legacy data list to a user of an application program of a computer system, comprising:

querying an operating system, by said application program upon start of said application program, whether one or more plug-in module is registered in a registry of an operating system, said one or more plug-in modules being capable of interfacing with corresponding respective ones of said one or more third party legacy data list;

receiving, from said one or more plug-in modules found in said registry, identifications of ones of said one or more third party legacy data list corresponding to said found one or more plug-in modules; and

providing a list of said identifications to said user through a user interface of said application program.

2. The method of providing an access to one or more third party legacy data list in accordance with claim 1, further comprising:

adding to said computer system one or more additional plug-in module capable of interfacing with one or more additional third party legacy data list; and

registering said one or more additional plug-in modules in said registry of said operating system, said application program being configured to find said one or more additional plug-in modules when said application program is started after said addition of said one or more additional plug-in modules.

3. The method of providing an access to one or more third party legacy data list in accordance with claim 1, further comprising:

allowing said user to select a selected one of said one or more third party legacy data list from said list of identifications; and

allowing said user to edit at least one datum of said selected one of said one or more third party legacy data list through an edit user interface of said selected one of said one or more third party legacy data list, said application program communicating with said selected

1 one of said one or more third party legacy data list through corresponding one of said one or  
2 more plug-in module.

3  
4 4. The method of providing an access to one or more third party legacy data list in  
5 accordance with claim 1, further comprising:

6 allowing said user to select a selected one of said one or more third party legacy data  
7 list from said list of identifications; and

8 allowing said user to access at least one datum of said selected one of said one or  
9 more third party legacy data list through said user interface of said application program, said  
10 application program communicating with said selected to said one of said one or more third  
11 party legacy data list through corresponding one of said one or more plug-in module.

12  
13 5. The method of providing an access to one or more third party legacy data list in  
14 accordance with claim 4, wherein:

15 said application program comprises a facsimile software; and

16 wherein said one or more third party legacy data list comprise one or more list of  
17 names and telephone numbers stored using a legacy facsimile software.

18  
19 6. The method of providing an access to one or more third party legacy data list in  
20 accordance with claim 4, wherein:

21 said application program comprises an e-mail software; and

22 wherein said one or more third party legacy data list comprise one or more list of  
23 names and e-mail addresses stored using a legacy e-mail software.

24  
25 7. The method of providing an access to one or more third party legacy data list in  
26 accordance with claim 4, wherein:

27 said application program comprises a personal organizer software; and

28 wherein said one or more third party legacy data list comprise one or more contact  
29 information and appointment information stored using a legacy personal organizer software.

one or more plug-in module, each of which being capable of interfacing with an associated one of said one or more third party data list, each of said one or more plug-in modules being registered in a registry of an operating system of said computer system; and an application program having a user interface, said application program upon starting being in communication with said operating system to query said registry to determine registered ones of said one or more plug-in module, said application program further configured to query each of said registered ones of said one or more plug-in modules for names of said one or more third party legacy data list, said application program being configured to provide a list of said names of said one or more third party legacy data list to said user through said user interface.

14           9. The system for providing an access to one or more third party legacy data list  
15 according to claim 8, further comprising:

an installer software configured to copy said one or more plug-in module to said computer system, said installer software further configured to registering said one or more copied plug-in modules in said registry of said operating system.

20           **10.** The system for providing an access to one or more third party legacy data list  
21   according to claim 8, wherein:

22           said user interface is configured to allow said user to select a selected one of said one  
23   or more third party legacy data list from said list of identifications.

25           **11.** The system for providing an access to one or more third party legacy data list  
26   according to claim 10, wherein:

27        said application program comprises a facsimile software; and

28 wherein said one or more third party legacy data list comprise one or more list of  
29 names and telephone numbers stored using a legacy facsimile software.

1           **12.** The system for providing an access to one or more third party legacy data list  
2 according to claim 10, wherein:

3           said application program comprises an e-mail software; and

4           wherein said one or more third party legacy data list comprise one or more list of  
5 names and e-mail addresses stored using a legacy e-mail software.

6

7           **13.** The system for providing an access to one or more third party legacy data list  
8 according to claim 10, wherein:

9           said application program comprises a personal organizer software; and

10          wherein said one or more third party legacy data list comprise one or more contact  
11 information and appointment information stored using a legacy personal organizer software.

12

13          **14.** A computer readable storage medium on which is embedded one or more  
14 computer programs, said one or more computer programs implementing a method of  
15 providing an access to one or more third party legacy data list to a user of an application  
16 program of a computer system, said one or more computer programs comprising a set of  
17 instructions for:

18          querying an operating system, by said application program upon start of said  
19 application program, whether one or more plug-in module is registered in a registry of an  
20 operating system, said one or more plug-in modules being capable of interfacing with  
21 corresponding respective ones of said one or more third party legacy data list;

22          receiving, from said one or more plug-in modules found in said registry,  
23 identifications of ones of said one or more third party legacy data list corresponding to said  
24 found one or more plug-in modules; and

25          providing a list of said identifications to said user through a user interface of said  
26 application program.

27

28

1           **15.** The computer readable storage medium in according to claim 14, wherein said one  
2 or more computer programs further comprising a set of instructions for:

3 adding to said computer system one or more additional plug-in module capable of  
4 interfacing with one or more additional third party legacy data list; and

5           registering said one or more additional plug-in modules in said registry of said  
6   operating system, said application program being configured to find said one or more  
7   additional plug-in modules when said application program is started after said addition of said  
8   one or more additional plug-in modules.

10           **16.** The computer readable storage medium in according to claim 14, wherein said one  
11 or more computer program further comprising a set of instructions for:

12           allowing said user to select a selected one of said one or more third party legacy data  
13   list from said list of identifications; and

14 allowing said user to edit at least one datum of said selected one of said one or more  
15 third party legacy data list through an edit user interface of said selected one of said one or  
16 more third party legacy data list, said application program communicating with said selected  
17 one of said one or more third party legacy data list through corresponding one of said one or  
18 more plug-in module.

20           **17.** The computer readable storage medium in according to claim 14, wherein said one  
21    or more computer program further comprising a set of instructions for:

22           allowing said user to select a selected one of said one or more third party legacy data  
23   list from said list of identifications; and

24 allowing said user to access at least one datum of said selected one of said one or  
25 more third party legacy data list through said user interface of said application program, said  
26 application program communicating with said selected to said one of said one or more third  
27 party legacy data list through corresponding one of said one or more plug-in module.

1       **18.** The computer readable storage medium in according to claim 17, wherein :  
2       said application program comprises a facsimile software; and  
3       wherein said one or more third party legacy data list comprise one or more list of  
4       names and telephone numbers stored using a legacy facsimile software.

5  
6       **19.** The computer readable storage medium in according to claim 17, wherein :  
7       said application program comprises an e-mail software; and  
8       wherein said one or more third party legacy data list comprise one or more list of  
9       names and e-mail addresses stored using a legacy e-mail software.

10  
11       **20.** The computer readable storage medium in according to claim 17, wherein :  
12       said application program comprises a personal organizer software; and  
13       wherein said one or more third party legacy data list comprise one or more contact  
14       information and appointment information stored using a legacy personal organizer software.



# ABSTRACT OF THE DISCLOSURE

1  
 2 A method and system of a computer application program allows a user of the application  
 3 program to utilize third party legacy data lists, e.g., contact information lists, telephone and  
 4 facsimile numbers, scheduling and/or appointment information or the like, through a common  
 5 interface, without requiring the user to manually type in the data into a new data list or to  
 6 maintain multiple data lists. For each of the third party legacy data list installed on the  
 7 computer, one of a plurality of plug-in modules also installed on the computer acts as an  
 8 interface between the application program and the legacy data list. Each of the plug-in  
 9 module is an object accessible by the application program at run-time. In one embodiment,  
 10 the plug-in modules are compiled and a dynamic linked library (DLL) and registered in the  
 11 operating system registry based on an object oriented specification, e.g., the component  
 12 object model (COM) specification provided by the Microsoft Corporation of Redmond,  
 13 Washington, USA. The plug-in modules are listed under a COM category in the registry of  
 14 the operating system, and are discovered by the application program at start up. Additional  
 15 plug-in modules may be added at any time simply by registering the additional plug-in  
 16 modules. The next time the application program is started, the additional plug-in modules are  
 17 automatically discovered. Using the discovered plug-in modules, the application program  
 18 allows the user to access and/or edit the third party legacy data lists through the user interface  
 19 of the application program, or through an edit user interface of the third party legacy data list.

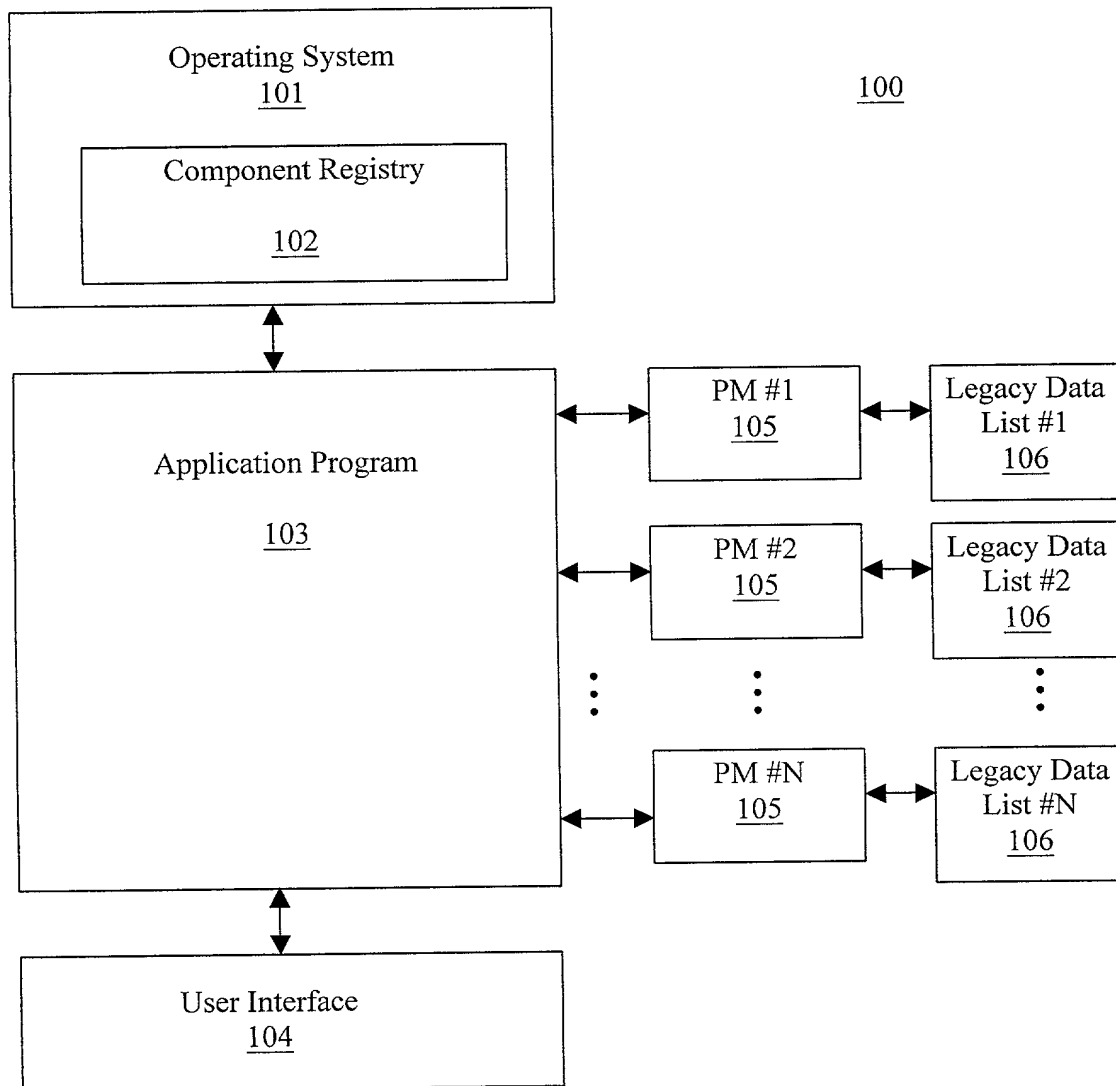


Fig. 1

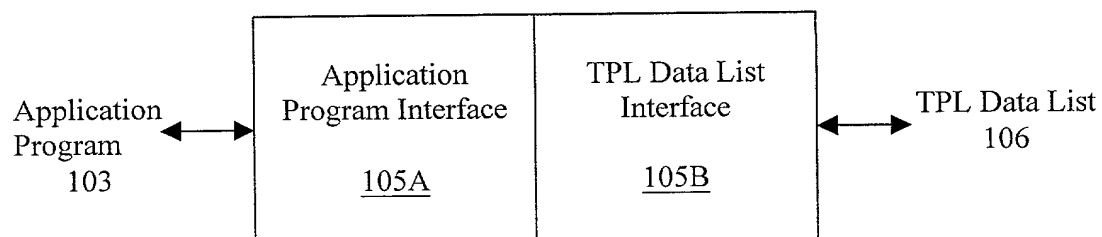


Fig. 1A

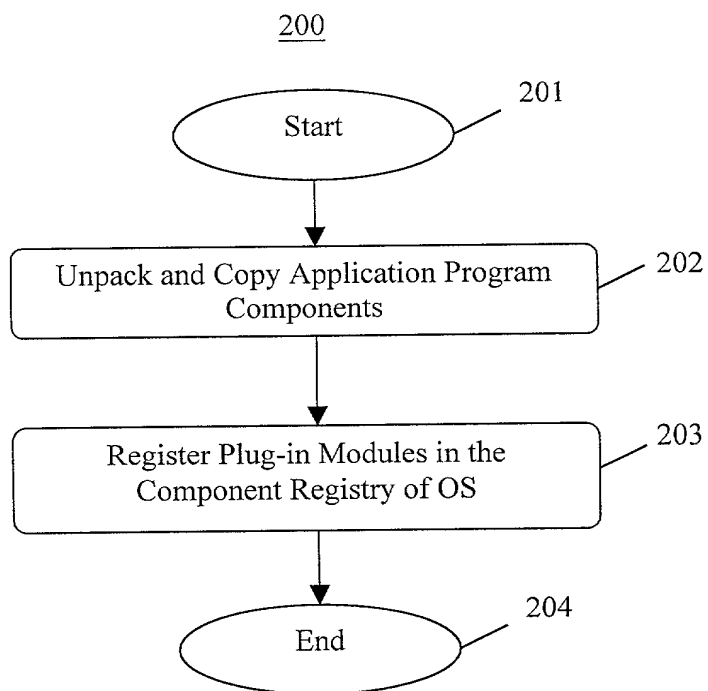


Fig. 2

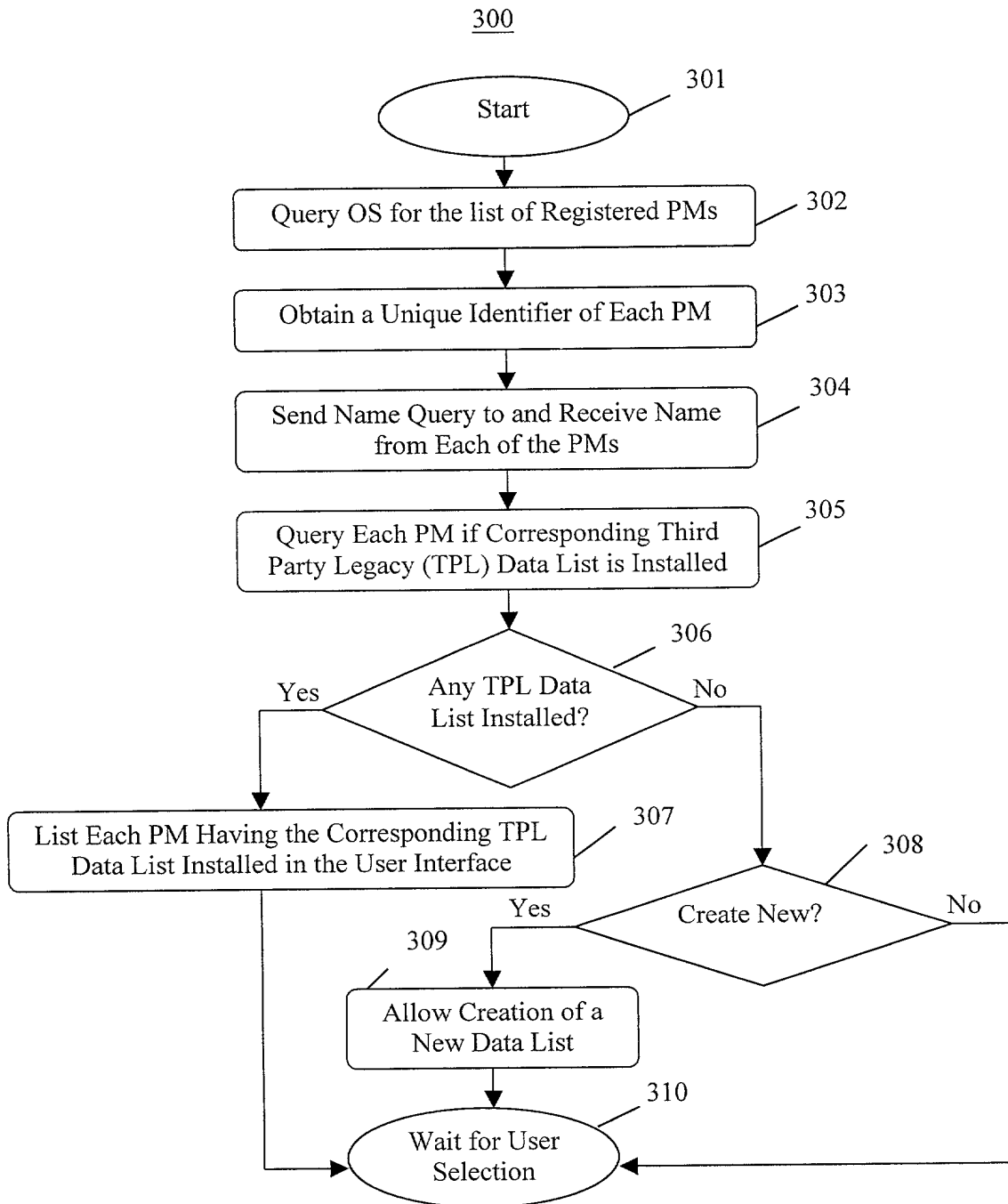


Fig. 3

? X

**400**

**Fax To**

Fax Number:

Name:

Company:

Resolution: 
 ☒ Standard 
 ☐ Fine 
 ☐ Superfine

Include With Fax:
   
☐ CoverPage >>
   
☐ Pages in Document Tray

**Phone Book**

Chris Mesa, 435-2296

**Current Project (Group)**

Dave Bohan, 425-2769

Jenifer Melin, 398-2219

**QA, (Group)**

Robert Smith, 222-4539

Sally Software, 434-0879

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**Phone Book Source**

Legacy Data List #2

402
404
403
401

Fig. 4

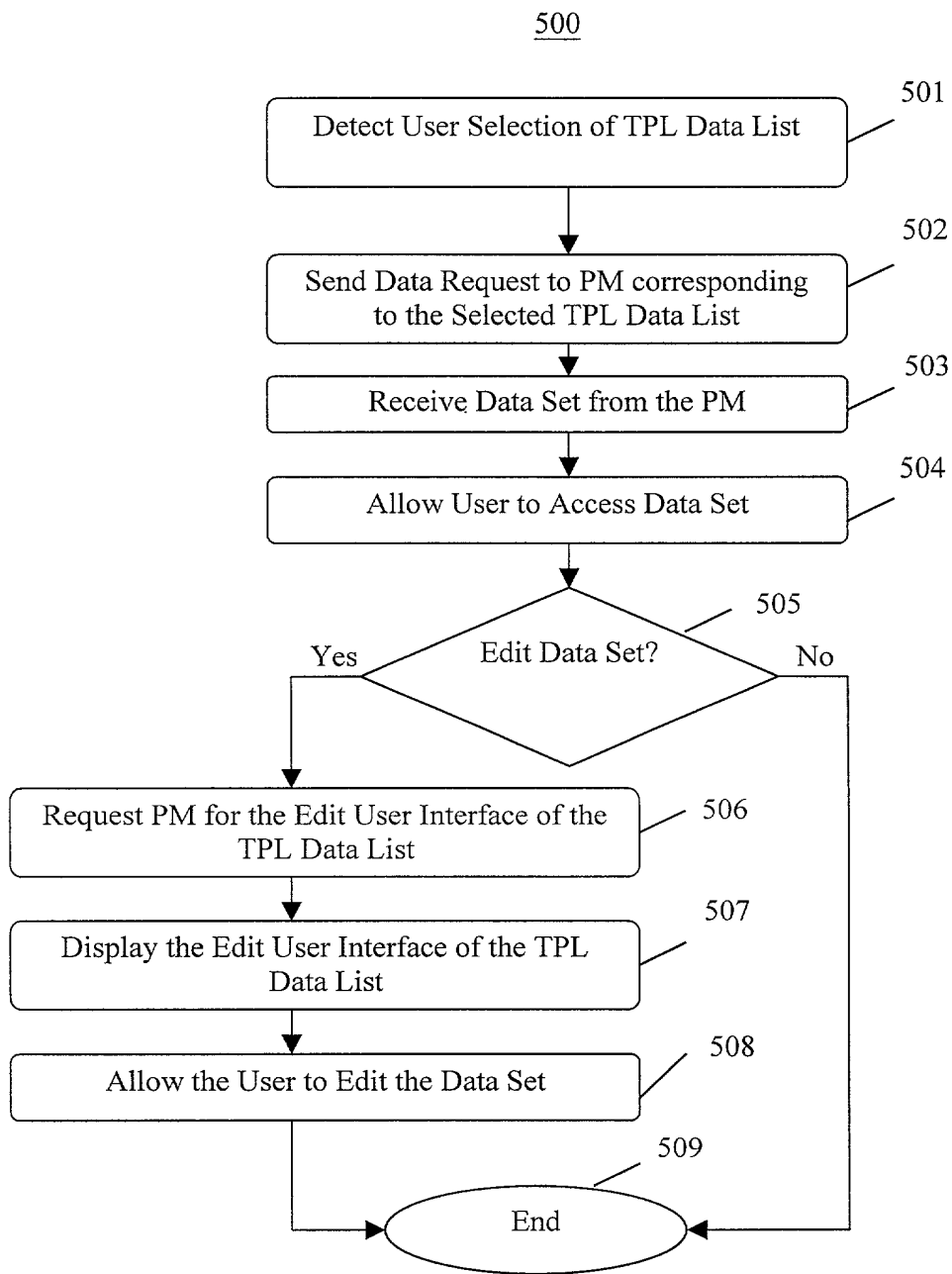


Fig. 5

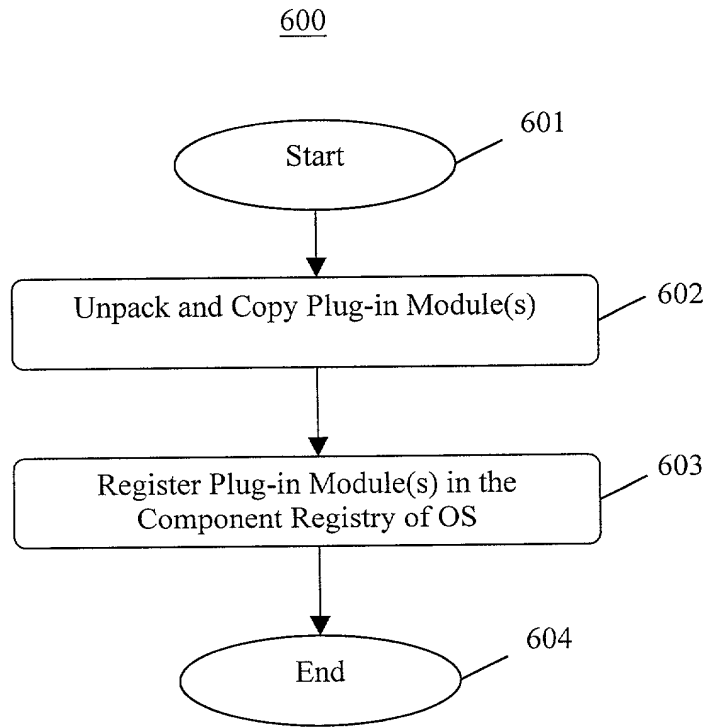


Fig. 6

**DECLARATION AND POWER OF ATTORNEY  
FOR PATENT APPLICATION**ATTORNEY DOCKET NO. 10002960-1

As a below named inventor, I hereby declare that:

My residence/post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**UTILIZATION OF THIRD PARTY LEGACY DATA LIST**

the specification of which is attached hereto unless the following box is checked:

( ) was filed on \_\_\_\_\_ as US Application Serial No. or PCT International Application Number \_\_\_\_\_ and was amended on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

**Foreign Application(s) and/or Claim of Foreign Priority**

I hereby claim foreign priority benefits under Title 35, United States Code Section 119 of any foreign application(s) for patent or inventor(s) certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

COUNTRY	APPLICATION NUMBER	DATE FILED	PRIORITY CLAIMED UNDER 35 U.S.C. 119
			YES: _____ NO: _____
			YES: _____ NO: _____

**Provisional Application**

I hereby claim the benefit under Title 35, United States Code Section 119(e) of any United States provisional application(s) listed below:

APPLICATION SERIAL NUMBER	FILING DATE

**U. S. Priority Claim**

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NUMBER	FILING DATE	STATUS (patented/pending/abandoned)

**POWER OF ATTORNEY:**

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Customer Number 022878Place Customer  
Number Bar Code  
Label hereSend Correspondence to:  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, Colorado 80527-2400

Direct Telephone Calls To:

Steven Ormiston  
(202) 396-4772

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Inventor: David BOHANCitizenship: USResidence: 2507 Haven Drive, Eagle, ID 83616Post Office Address: 2507 Haven Drive, Eagle, ID 83616David Bohan  
Inventor's Signature

Date

10/2/2000